REMARKS

Applicant has rewritten the claims to overcome the objections and § 112, second paragraph, rejections cited against the previous claims. The new claims are directed to the embodiment of FIG. 4. The language of the new claims is fully supported by that drawing and the specification. No new matter has been added. It is Applicant's belief that the new claims also alleviate the objections to the specification and drawings.

As shown in FIG. 4, Applicant's claimed invention comprises a tolerance ring 13 having a body 16 with an axis (see vertical arrow), a hollow cylindrical shape, a body diameter, and first and second axial ends 7. An interior of the body forms a body load bearing area for contacting an inner component 3. Protrusions 2 are formed in the body 13 and extend radially outward from the body relative to the axis. The protrusions 2 have a maximum protrusion diameter that exceeds the body diameter. An exterior of the protrusions form a protrusions load bearing area for contacting an outer component 4 (e.g., the bore of actuator arm 5) to distribute a load from the protrusions load bearing area to the body load bearing area.

A guide 14 extends axially and radially from the first axial end 7 of the body 16. The guide 14 has a maximum guide diameter that does not exceed the maximum protrusion diameter. The guide also has a guide surface 15a that is contiguous with the body load bearing area to facilitate alignment between the inner component 3 and the body 16 when the inner component 3 is inserted through the guide 14 and into the body load bearing area.

As thoroughly described in Applicant's specification, this unique design is specifically tailored to significantly reduce the production of particles or debris when the components are assembled. Paragraphs [0009]-[0015], [0025] and [0026]. Such contamination is highly detrimental for applications such as hard disk drives. [0051]-[0055]. Examples of conventional tolerance rings that generate particles are shown in Applicant's FIGS. 1-3 and 5.

The primary reference to *Gutierrez* also generates particles. FIG. 3 of *Gutierrez* shows a tolerance ring 32 with a flange 36 that forms a sharp, 90° bend with respect to its body 34. This sharp edge generates debris during assembly. In addition, the flange 36 has a maximum diameter that far exceeds the maximum diameter of its protrusions. The protrusions are not

numbered, but clearly shown on the right edge of FIG. 3 relative to flange 36. Moreover, some of the protrusions extend radially inward. These two latter differences are distinguished by Applicant's claims.

The second reference, *Cramer '390*, discloses a tolerance ring 60 (FIG. 7) having "a discontinuous axial retention means 82." Col.4, ll.60-61. As shown in FIG. 6, means 82 are really discrete tabs. *Cramer '390* describes them as "a plurality of radially outward projecting tabs…formed along one axial end 70 of the ring." Col.4, ll.61-65. These tabs 82 have sharp edges that would generate particles during assembly. Moreover, the maximum diameter of the tabs 82 clearly exceeds that of both the bore 74 and the corrugations 64. This is an important teaching in *Cramer '390* since the intent of tabs 82 is to axial restrain the ring in the bore. Col.4, ln.66 – col.5, ln.2. Because of this teaching, Applicant's claimed invention is readily distinguishable over this reference, even when it is combined with the other references. In addition, the corrugations 64 also extend inward rather than outward, as required by the claimed invention. All of the other embodiments in *Cramer '390* have sharp edges that generate contamination during assembly.

Similarly, *Neidecker* discloses a contact body 3 (FIGS. 1 and 3) having inward and outward projecting lamellae 4 and tab-like fingers (not numbered). FIG. 1 clearly shows that the diameter of the tab-like fingers exceeds that of both the bore and the lamellae 4. Applicant further objects to *Neidecker* since it discloses a feathery electrical connector rather than a resilient tolerance ring. *Neidecker* is completely incapable of providing the load bearing areas of Applicant's claimed invention.

Finally, the reference *Cramer '423* discloses tolerance rings with the same sharp edges, excessive flange diameters, and axial retention means previously distinguished herein. *Cramer '423* also discloses rings that require shims 72 (FIGS. 6-9). The shims have sharp rectangular edges that generate debris when installed on the rings. Whether alone or in combination, none of these references provides the elements and benefits of the claimed invention. Moreover, some of these references teach away from Applicant's claimed invention.

Applicant respectfully submits that the present application is in condition for allowance. Should the Examiner deem that any further action by Applicant would be desirable for placing

this application in even better condition for issue, the Examiner is requested to telephone Applicant's undersigned representative at the number listed below.

Applicant does not believe that any additional fees are due, but if the Commissioner believes additional fees are due, the Commissioner is hereby authorized to charge any fees, which may be required, or credit any overpayment, to Deposit Account Number 50-3797.

Respectfully submitted,

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Date

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